

Hand Signals

Before any lifts are commenced, all parties, including the crane operator, signalers, riggers and others involved, must refamiliarize themselves with appropriate hand signals. Often signals vary from job to job and region to region. It is best to ensure that everyone is familiar with the hand signals outlined in ANSI/ASME B30.5, Mobile and Locomotive Cranes (see Figure 16). The standard states that “When using hand signals, the Standard Method must be used.” (29 CFR 1926.1419(c)(1)) The standard references ASME B30.3-2004 and ASME B30.5-2004. (29 CFR 1926.1401)

Signaling Devices

On lifts where the signalers are outside the direct view of the operator due to elevation or in blind areas, either a telephone or radio is necessary. Modes of communication must be agreed upon in preconstruction planning and in the job hazard analysis.

Lifting Capabilities

During preconstruction planning, lifting requirements should be analyzed by an engineer competent to establish whether the crane to be used has adequate lifting capability. The job hazard analysis should also verify that the crane to be used has sufficient boom length for the lift.

Rigging Practices

The requirements for slings to support loads are well defined in OSHA standards 29 CFR 1910.184, and the requirements for rigging equipment are defined in 29 CFR 1926.251 and 29 CFR 1926.1431(g)(3).

Controlling the Load

The use of tag lines to control movement of the load is very important. Normally, when a load is being hoisted, the lay or twist in wire rope causes rotation when the load becomes suspended. OSHA standard 29 CFR 1910.180(h)(3)(xvi) states: “... A tag or restraint line shall be used when rotation of the load is hazardous.”

Wire Rope Requirements

It is very important to comply with the crane manufacturer’s recommendations for the type of wire rope to be used for various hoist lines or pendants.

Annual Inspections

A number of business firms are certified to perform annual crane inspections. A notice of the current inspection should be posted in the crane. Cranes that cannot be certified must be removed from service until all necessary repairs are made and the equipment is reinspected. Annual crane inspections are required by 29 CFR 1910.179(j), 29 CFR 1910.180(d), 29 CFR 1910.181(d) and 29 CFR 1926.1412.

Preventive Maintenance

Cranes require ongoing service and preventive maintenance. Preventive maintenance programs should be documented according to the crane manufacturer’s recommendations.